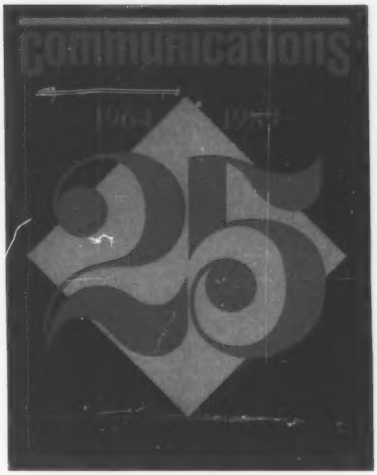
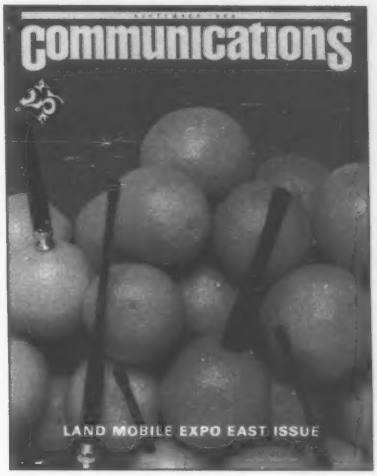




1989 EDITORIAL INDEX

A handy reference index for all *Communications* issues from 1989.

Compiled by Laura Ledeboer

ANNIVERSARY
Evolving Relationship, March, p. 55
Expo Facto, September, p. 113
Future In Public-Safety Communications, August, p. 71
In The Beginning, January, p. 47
Looking Back, February, p. 51
Looking Back At The Leading Edge, July, p. 55
Looking Up, November, p. 63
Photo Albumette, December, p. 50
Regulation: Then and Now, October, p. 51
Staying Power, April, p. 90
Syntonic: That Was Then, June, p. 60
Wasn't That A Bit Like Now?, May, p. 48

APPLICATION
Bettering Par With Packet, J. Kanne, September, p. 70
Electronic Interfacing, E. Terborgh, December, p. 53
ITS: A New Vehicle Locator, B. Bienstadt, November, p. 56
Racing Radios, T. Bonneau, September, p. 118
Radio in the War on Drugs, K. Gadd, September, p. 74

ASSOCIATION PERSPECTIVE
American SMR Network Association, February, p. 92
American SMR Network Association, September, p. 179
Associated Public-Safety Communications Officers, August, p. 97
Energy Telecommunications and Electrical Association, March, p. 84
Manufacturers Radio Frequency Advisory Committee, April, p. 167
National Association of Business and Educational Radio, June, p. 76
Special Industrial Radio Service Association, January, p. 78

Telocator, December, p. 82
Telocator, May, p. 88
Telocator, October, p. 98
United States Independent Cellular Telephone Association, November, p. 96
Utilities Telecommunications Council, July, p. 87

COMPANIES
American Mobile Satellite Gears Up, R. Stoddard, October, p. 36
Fertile Soil, B. Chapin, August, p. 42
Manufacturing A Revival, B. Chapin, September, p. 40
Short-Haul For The Long Run, D. Cervenka, April, p. 72
Wall Street Paging, D. Cervenka and F. Baumgartner, December, p. 44

COMPETITION
Cellular's CT-2 Competition, K. Van Lewen, September, p. 61

FCC—see "Regulation"

FINANCE
Cellular Strategies, T. Kerver, May, p. 52
Economic Encore, D. Purcell, January, p. 22
Structuring Sales and Acquisitions, L. J. Dixon II, March, p. 66

INDUSTRY RESEARCH
1989 Cellular Dealer Survey, D. Purcell, June, p. 68
Dealer Profile 1989, F. Baumgartner, December, p. 29
End User Profile 1989, F. Baumgartner, November, p. 46
Paging Profile 1989, D. Purcell, October, p. 30
Public-Safety Profile, D. Purcell, August, p. 26
Roaming's Growth, A.D. Roscoe and G.W. Wallace, Jr., April, p. 48
SMR Profile 1989, B. Chapin, May, p. 39
Techs' Book 89, D. Purcell, July, p. 47

INDUSTRY WATCH
89 Revisited, February, p. 32
A Tricky Crowd, January, p. 20
An Unlikely Break, May, p. 20

ULTRALINK™
CABLE

Your Best Connection

Those few words tell you that UltraLink™ was developed specifically for two-way commmercial radio communication by the company that understands the need for proper cable.

Cushcraft/Signals knows the problems that installers have with cables that won't fit the connectors. We know what can happen when hot exhaust pipes contact cable. And most importantly, we know how much signal can be lost be lost between the radio and the antenna.

UltraLink™ is the RG-58 size cable that withstands heat, is easy to install, and has less than 15 dB loss/100 feet at 900 MHz. That makes UltraLink™ your best connection for mobile or control station applications. And that's why UltraLink™ is supplied with Cushcraft/Signals 800/900 MHz antennas featuring low-loss cable.

Call Cushcraft/Signals for a sample. Let your technician strip it and install a connector. You will both be convinced that UltraLink™ is a superior cable. That's why it carries the Cushcraft/Signals name!

1-800-258-3860

Easy-to-crimp solid center conductor
Heat resistant Teflon® dielectric
Non-glued foil for easy peel-back
95% braid coverage for low loss
RG-58 size for exact connector fit

cushcraft/Signals

48 Perimeter Road, Manchester, NH 03108 USA
603-627-7877 • FAX 603-627-1764 • TLX 4949472

INFO/CARD 37

WELL CONNECTED.

NEW CTCSS ENCODERS/DECODERS. *Smaller size, easier installation plus competitive pricing!* Now even better than before...no more wires falling off PCB's as they are now installed in a sub-miniature connector that simply plugs into a header on the PCB. Both models offer high stability, immunity to RF, high pass filter and meet all specs for EIA RS-200-A.

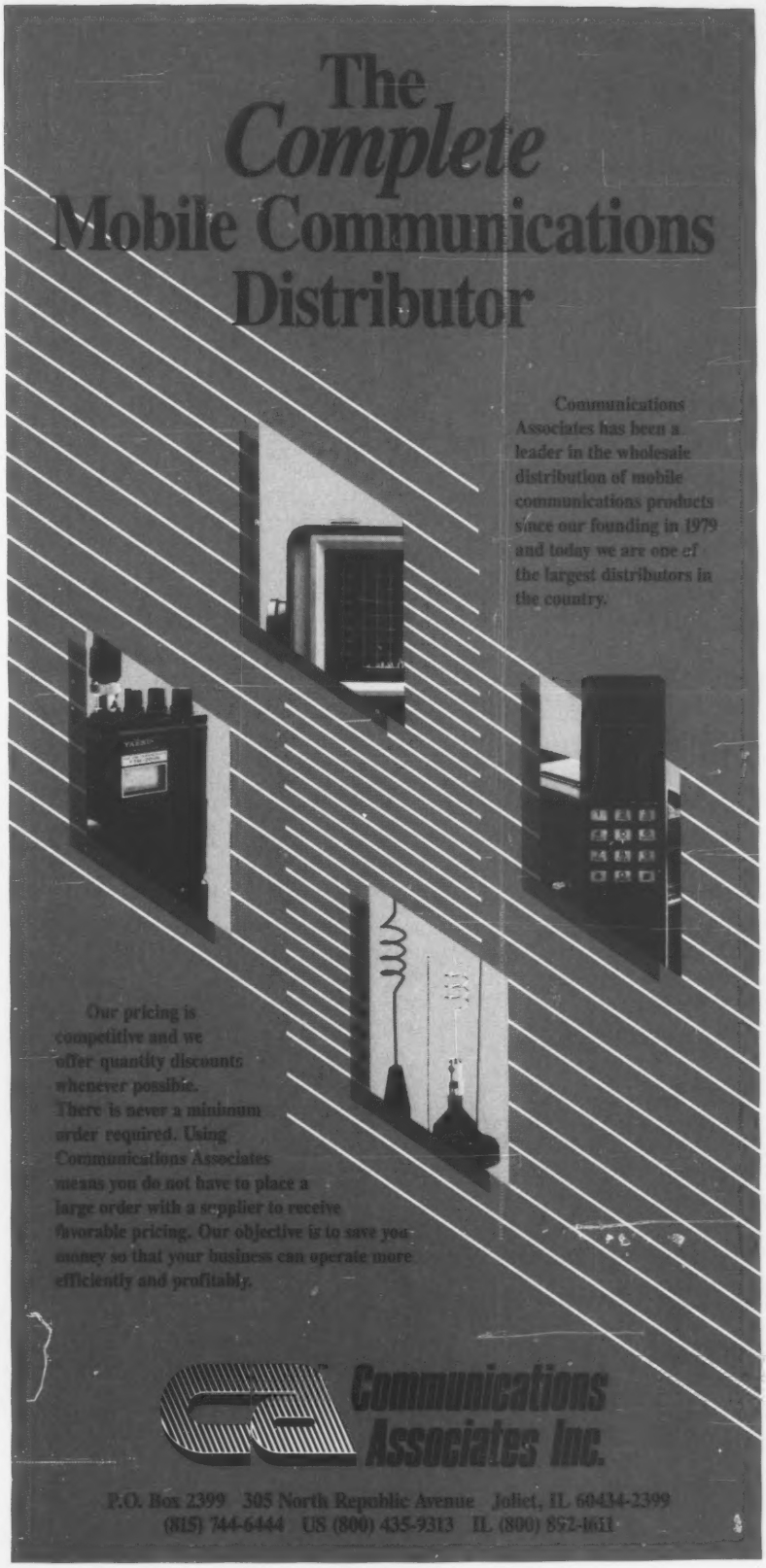
Model NC102 — Size: 0.8"W x 1.60"L x 0.20"H
Model NC106 — Size: 1.0"W x 1.7"L x 0.22"H

Call or write today for pricing and full specifications.

NORCOMM
TONE SIGNALLING PRODUCTS

TOLL FREE SALES 800-874-8663 / In California Call (916) 477-8400 / FAX (916) 477-8403
12438 Loma Rica Drive "A" / Grass Valley, CA 95945

INFO/CARD 36


The Complete Mobile Communications Distributor
Communications Associates has been a leader in the wholesale distribution of mobile communications products since our founding in 1979 and today we are one of the largest distributors in the country.
Our pricing is competitive and we offer quantity discounts whenever possible. There is never a minimum order required. Using Communications Associates means you do not have to place a large order with a supplier to receive favorable pricing. Our objective is to save you money so that your business can operate more efficiently and profitably.
Communications Associates Inc.
P.O. Box 2399 305 North Republic Avenue Joliet, IL 60434-2399
(815) 744-6444 US (800) 435-9313 IL (800) 892-1611

Ayre Force, July, p. 22
Data on the March, April, p. 22
Holding the Bag, June, p. 20
Keeping the Edge, March, p. 18
Moving Messages, November, p. 16
New ERA at FCC, October, p. 22
Shape of Data, September, p. 22
Spectrum...Maybe it's how we are doing it?, December, p. 20
Trade Relief, August, p. 22

MANAGEMENT
Computing The Future, C. Kinsey, April, p. 116
Managing Mobile's World, *Communications* staff, June, p. 36
Power Business Planning, D. Cervenka, December, p. 22
SMR Management Contracts, K. Van Lewen, February, p. 74
Two-Way Shop Survival Tactics, E. Werny, May, p. 22

MARKETING
Market Driven Systems, N. Adawi, September, p. 146

MARKETS
Cellular Scenario, R. Stamminger and S. Ryba, October, p. 55
Counting Every Minute, R. Blaine, February, p. 34
Emerging Markets, *Communications* staff, June, p. 30
Positioning Services Market, S. Simha, S. Ryba, and L. Snively, April, p. 106
Tapping 89's Mobile Markets, K. Van Lewen, May, p. 63

PERSONNEL TRAINING
Lights, Camera, Training, B. Chapin, December, p. 41

PROFILE
Barton, Daymon G., July, p. 116
Gerrard, William T., September, p. 210
Harris, Homer, February, p. 112
Kolsky, Leonard, April, p. 194
Mills, G. Melvin Jr., June, p. 114
Murray, George W., August, p. 126
Rothblatt, Martin A., November, p. 120
Sabino, Tony, December, p. 110
Scarpa, John, May, p. 118
Sherwin, Richard J., October, p. 118
Wiley, Richard, March, p. 114
Young, William J., January, p. 98

REGULATION

Coordination: Pursestring Politics, R.H. Schwaninger, Jr., April, p. 60
Expanding Trunking in SMR, K. Van Lewen and R. Stoddard, February, p. 46
HDTV: Worm in the Spectrum Apple?, A.S. Tilles and D.E. Weisman, October, p. 60
Interconnection Issues, R.B. Norton, October, p. 44
Lesson in Regulation Frustration, L. Movshin, April, p. 123
Package Deal, R.A. Chandler, September, p. 78
Public and Private Carriers: Coexistence or Collision Course?, K. Van Lewen, April, p. 34
Regulatory Outlook and Docket Watch 89, K. Van Lewen and R. Stoddard, January, p. 34
Seeking the Right Path in Frequency Coordination, K. Van Lewen and R. Stoddard, March, p. 34
Will Enforcement Survive FCC Budget Cuts?, K. Van Lewen, July, p. 42

SALES
Identity, D. Beveridge, April, p. 102
Portable Progress, B. Bienstadt, September, p. 125
Strengthening Dealer Loyalty, L. Baker, April, p. 137

SHOWS
Bridge to World Progress, D. Purcell, April, p. 26
Crossing the Bridge, *Communications* staff, June, p. 22
Dressed Up and Ready, D. Cervenka, September, p. 34
Expo East: Working Vacation, D. Cervenka, August, p. 36
Great Expo-sure, *Communications* staff, June, p. 48
Profits From Tomorrow's Technology, B. Chapin, September, p. 24
Today—State of the Business, *Communications* staff, November, p. 32
Tomorrow—Future of the Industry, *Communications* staff, November, p. 38
Topping Off the 80s, D. Purcell, March, p. 20
Yesterday—the Show, *Communications* staff, November, p. 24

SURVEYS—see "Industry Research"

SYSTEMS
MAS Communication Requirements, R. Lescalleet, September, p. 134

EAR-MIKE™
FOR
HANDS-FREE
PORTABLE RADIO COMMUNICATIONS

—even under protective suits or breathing apparatus.

Use the Ear-Mike with a portable radio to ensure uninterrupted two-way communications at critical moments.

As you speak, the vibrations from the voice box (larynx) carry to the inner ear where they are picked up by the Ear-Mike and transmitted via the portable radio. A variety of ingenious push-to-talk switches leave the hands free to do other work. And, these voice transmissions are remarkably clear, even when whispering.

The Ear-Mike is ideally suited for discreet communications in investigative or security work. SWAT teams stay in communication with weapons at the ready. Emergency paramedics and rescue workers transmit while their hands are busy with other work, and communications by firefighters or Haz-Mat personnel are not hampered by protective suits or breathing apparatus.

Ear-Mike—for hands-free, continuous two way radio communications at the critical moments—may help save the day, may even help save a life. For information write Telex-Magnum, 9600 Aldrich Avenue South, Minneapolis, MN 55420. Or phone (604) 270-1389.

©1989 Telex Communications, Inc.

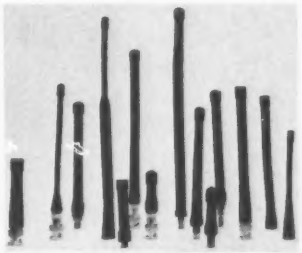
TELEX. MAGNUM

INFOCARD 41

PARAGON
ENGINEERING, INC.

PROUDLY INTRODUCES A COMPLETE LINE OF ORIGINAL EQUIPMENT AND REPLACEMENT PORTABLE ANTENNAS

SPECIALIZING IN INJECTION MOLDED ANTENNAS WITH BUILT IN STRAIN RELIEFS FOR LONGER LASTING REPLACEMENTS OF EARLIER DESIGNS



Inquiries From Manufacturer's Representatives Distributors and Dealers Are Welcomed!

PARAGON ENGINEERING, INC.
P.O. BOX 26330
TAMARAC, FLORIDA 33320

TEL NO. (305) 486-9000
FAX NO. (305) 486-9001

INFO/CARD 43

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION (Required by 39 U.S.C. 3685)

1. Title of Publication: COMMUNICATIONS
1B. Publication No.: 935840
2. Date of Filing: Oct. 2, 1989
3. Frequency of Issue: Monthly
3A. No. of issues published annually: 12
3B. Annual Subscription Price: $24.00
4. Complete Mailing Address of Known Office of Publication: Cardiff Publishing Co. Inc., 6300 S. Syracuse Way, Ste 650, Englewood, CO 80111
5. Complete Mailing Address of the Headquarters of General Business Offices of the Publisher: Cardiff Publishing Co. Inc., 6300 S. Syracuse Way, Ste 650, Englewood, CO 80111
6. Full Names and Complete Mailing Address of Publisher, Editor and Managing Editor: Publisher: Elaine Baugh, 6300 S. Syracuse Way, Ste 650, Englewood, CO 80111
Editor: Bob Chapin, 6300 S. Syracuse Way, Ste 650, Englewood, CO 80111
7. Owner (if owned by a corporation, its name and address must be stated and also immediately thereunder the names and addreses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be given. If the publication is published by a nonprofit organization, its name and address must be stated.) (item must be completed): Cardiff Publishing Co. Inc. is a subsidiary of: Argus Press Limited, 6255 Barfield Road, Atlanta, GA 30328-4369
8. Known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities (if there are none, so state): None

9. Extent and nature of circulation	Average No. copies each issue during preceding 12 months	Actual No. copies of single issue published nearest to filing date
A. Total No. Copies (Net Press Run)	23,648	26,556
B. Paid and/or requested circulation		
1. Sales through dealers and carriers, street vendors and counter sales	None	None
2. Mail subscription (Paid and/or requested)	19,192	19,774
C. Total paid and/or requested circulation (Sum of 9B1 and 9B2)	19,192	19,774
D. Free distribution by mail, carrier or other means (samples, complimentary and other free copies)	2,696	2,206
E. Total Distribution (Sum of C and D)	21,888	21,980
F. Copies not distributed		
1. Office use, left over, unaccounted, spoiled after printing	1,760	4,576
2. Return from News Agents	None	None
G. TOTAL (Sum of 3, F1 and 2 — should equal net press run shown in A)	23,648	26,556

10. I certify that the statements made by me above are correct and complete.
(Signed) Robert A. Searle, President/Publisher

TECHNOLOGY
Battery Doctor, I. Buchmann, March, p. 70
Cellular's Gain, G. Cooper, April, p. 152
Digital Cellular's Battleground, T. Kerver, February, p. 67
Digital Comes to Narrowband, L.T. Jones, April, p. 81
Land Mobile Satellite Antennas, D. Bell, V. Jamnejad, M. Bobb and J. Vidican, April, p. 142
Making Tower Mods Work, D.W. Rose, April, p. 38
Mobile Satellite Brought to Earth, J.C. Bell, November, p. 66
Network Analysis, J. Peterzak, February, p. 60
Parts is Parts? No!, M. Robison, May, p. 58
Troubleshooting Intermittents, K.E. Andrew, February, p. 70

TECHNOLOGY APPLICATIONS
CAD: A Utility Player, M. Garza, March, p. 62
Finally Getting the Message, I.M. Jacobs, July, p. 34
Paging Talks Back, D. Purcell and R. Simpson, August, p. 54
Political Aspirations, J.A. Mungovan, April, p. 132
'Wouldn't Want to Work Without it,' V. Holm-Hanson, March, p. 50

THE INDUSTRY
1988 Editorial Index, K. Norris, January, p. 54
A First Step in Trade Relations, R. Stoddard, September, p. 52
A New Low in Public Safety, B. Chapin, August, p. 48
Cellular Gets the Business, D. Cervenka, May, p. 30
Cellular Report Card, K. Van Lewen, February, p. 38
Cellular Smorgasbord, *Communications* staff, June, p. 44
Conventional Radio: Alive and Well, D. Cervenka, March, p. 28
Don't Call it a Pager, D. Cervenka, October, p. 24
Jockeying For Position, T. Kerver, December, p. 36
Playing For High Stakes, T. Kerver, September, p. 47
Rave Reviews For Cellular, T. Kerver, August, p. 61
The Power of Radio, T. Dover, July, p. 24 □